

PRACTICE TEST 1 - CHAPTER 1 AND 2Beginning and Intermediate Algebra by Messersmith, 4th edition**Evaluate. Express number in simplest form using integers or fractions:**

1. $2 + 3(10 - 7)^3$

2. $28 \div (4 - 2)^2 + 1 \cdot 6$

3.
$$\frac{(5 + 7)^2 - 2^6}{8 \cdot 5 - 4 \cdot 7}$$

4. Find the perimeter of a rectangle with length 7 meters and width 5 meters. Include the correct units.

5. Find the area of a rectangle with length 9 feet and width 6 feet. Include the correct units.

6. Find the circumference of the circle if $a = 16$ feet. Include the correct units. Use 3.14 for π .

7. Find the volume of a rectangular solid measuring 17 cm long, 7 cm wide, and 7 cm high. Include the correct units.

Evaluate the expression:8. Evaluate the expression when $d = \frac{-9}{8}$; $16d - 11$ 9. Evaluate the expression when $a = 2$ and $b = 1$. $\frac{a + 7b}{a - 5b}$ **Simplify:**

10. $9(m + 4)$

11. $-3(-8a - 4b + 3)$

12. $-5(p - 1) - (5 - 11p)$

13. Write a mathematical expression for the phrase and simplify, if possible. Let x represent the unknown quantity. The sum of twelve and twice a number.

14. Simplify each:

$$(-8)^2 = \underline{\hspace{2cm}} \qquad -6^2 = \underline{\hspace{2cm}}$$

Simplify the expression. Write answers with positive exponents only:

15. $(6a^6)(-3a^9)(7a^7)$

16. $\left(\frac{y}{4}\right)^3$

17. $(3k^6)^2(3k^8)^2$

18. $3vw^3(-v^4w^6)^2$

19. $\left(\frac{-3}{2}d^7\right)^3(3d)^2$

20. $\left(\frac{3}{2}t^9\right)^4\left(\frac{8}{9}t^4\right)^2$

24. $\frac{p^{-10}}{q^{-12}}$

25. $\frac{11t^8u^{-5}}{5v^{-7}w^2}$

26. $\left(\frac{4r^4s}{7r^{-2}s^{-3}}\right)^2$

27. $(-ab^4c^7)^3\left(\frac{a^2}{bc}\right)^2$

28. $\left(\frac{34x^{-3}y^7}{51x^9y^{-6}}\right)^{-4}$

29. $\frac{(a^3b^{-7}c)^{-6}}{(a^9b^{-5}c)^{-4}}$

30. $\frac{(2mn^{-2})^3(5m^2n^{-3})^{-1}}{(3m^{-3}n^3)^{-2}}$

Simplify the expression. Write answers with positive exponents only:

21. $\frac{(-6k^8)^2}{(2m^2)^4}$

22. 2^{-6}

23. $\left(\frac{5}{8}\right)^{-3}$

MATH0361 Practice Test 1 Answers:

1) 83

2) 13

3) $\frac{20}{3}$

4) 24 m

5) 54 ft²

6) 100.48 feet

7) 833 cm³

8) -29

9) -3

10) $9m+36$

11) $24a+12b-9$

12) $6p$

13) $12+2x$

14) 64, -36

15) $-126a^{22}$

16) $\frac{y^3}{64}$

17) $81k^{28}$

18) $3v^9w^{15}$

19) $-\frac{243}{8}d^{23}$

20) $4t^{44}$

21) $\frac{9k^{16}}{4m^8}$

22) $\frac{1}{64}$

23) $\frac{512}{125}$

24) $\frac{q^{12}}{p^{10}}$

25) $\frac{11t^8v^7}{5u^5w^2}$

26) $\frac{16}{49}r^{12}s^8$

27) $-a^7b^{10}c^{19}$

28) $\frac{81x^{48}}{16y^{52}}$

29) $\frac{a^{18}b^{22}}{c^2}$

30) $\frac{72n^3}{5m^5}$